

Notice of Allowability

Application No.

10/692,301

Examiner

Nikita Wells

Applicant(s)

FARNSWORTH, VINCENT R.

Art Unit

2881

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to "Amendment and Response" rec. 02/06/06 and "Response to Office Action" rec 10/31/05.
2. ☒ The allowed claim(s) is/are 2-29.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 06/30/06
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

Nikita Wells
Primary Examiner
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DETAILED ACTION

Allowable Subject Matter

1. Claims 2-29 are allowed.
2. The following is an examiner's statement of reasons for allowance:

The Applicant amended the independent claims 9 and 15, canceled claims 1 and 17-18, added new claims 23-29, and presented arguments in favor of allowance of the amended claims according to the "Amendment and Response" received February 6, 2006 and the "Response to Office Action dated May 26, 2005" received October 31, 2005. With respect to the independent claims 9, 15, 16, 19, 23, and 29, the Applicant demonstrated to the Examiner's satisfaction that the 35 U.S.C. 102(b) rejections, as well as the 35 U.S.C. 103(a) rejections, over the primary references of J.M.B. Bakker (3,634,683) or Y. Glukhoy (6,791,079) are no longer applicable to the Applicant's invention.

With respect to the independent claims 9, 16, and 23, J.M.B. Bakker, Y. Glukhoy, as well as any other prior art, fail to disclose a time-of-flight mass analyzer comprising: an ionizer adapted to provide ions of a sample substance to be analyzed; a flight tube accepting ions provided from the ionizer, said flight tube adapted to constrain said ions to a substantially helical ion flight path using a generally static electric field, the flight tube comprising a first electrode having a generally cylindrical electrode surface facing an interior portion thereof, said first electrode further having an ion inlet disposed through a side thereof; a second electrode having a generally cylindrical electrode surface facing an exterior portion thereof, said second electrode being concentrically disposed with said first electrode, said second electrode further having an opening along an arcuate portion of the electrode surface in a region proximate said ion inlet; and

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a third electrode having an arcuate electrode surface facing an exterior portion thereof, said third electrode being disposed in said arcuate opening of said second cylindrical electrode.

With respect to the independent claims 15, 19, and 29, J.M.B. Bakker, Y. Glukhoy, as well as any other prior art, fail to disclose a time-of-flight mass analyzer comprising: a first electrode having a generally cylindrical electrode surface facing an interior portion thereof, said first electrode further having an ion inlet disposed through a side thereof; a second electrode having a generally cylindrical electrode surface facing an exterior portion thereof, said second electrode being concentrically disposed with said first cylindrical electrode, said second electrode further having an opening through an arcuate portion of the electrode surface at least in a region proximate said ion inlet; and a third electrode having an arcuate electrode surface facing an exterior portion thereof, said third electrode being disposed in said arcuate opening of said second electrode.

The dependent claims 2-8 and 10-14, 20-22, and 24-28, are allowed by virtue of their dependence upon claims 9, 19 and 23, respectively.

Conclusion

3. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nikita Wells whose telephone number is (571) 272-2484. The examiner can normally be reached on 8:30 AM - 5:00 PM. If attempts to reach the examiner by

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telephone are unsuccessful, the examiner's supervisor, Drew Dunn, can be reached on (571) 272-2312. The central fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

5. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Nikita Wells, Primary Examiner
Art Unit 2881
November 6, 2006